

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A block error compensating apparatus comprising:
a video codec decoder for decoding an inputted image frame and outputting a decoded image frame; and
an error concealment block for detecting an error-generated block in the decoded image frame based on a pixel value of the detected block and an average value of pixel values of blocks adjacent to the detected error block, the error concealment block further for compensating the detected error block through a median filter[[,]] and outputting a compensated image frame.
2. (Currently Amended) The apparatus of claim 1, wherein the error concealment block comprises:
an error detection block for detecting ~~an~~ the error-generated block in the inputted image frame;
an error refinement block for confirming whether the detected block is an error block based on ~~a~~ the pixel value of the detected block and pixel values of blocks adjacent to the detected block;

an error correction filter for compensating the confirmed error block through a the median filter to create a compensated block; and

a frame generation block for restoring an image frame including the compensated block.

3. (Currently Amended) The apparatus of claim 2, wherein the error refinement block confirms whether the detected block is ~~an~~ the error block by averaging pixel values of blocks adjacent to the detected error block to obtain ~~an~~ the average value, obtaining an absolute value for a difference between the average value and ~~a~~ the pixel value of the detected error block, and comparing the absolute value with a predetermined value.

4. (Original) The apparatus of claim 3, wherein the error refinement block determines the detected error block as the error block when the absolute value is greater than the predetermined value, and determines the detected error block as a block having no error when the absolute value is less than the predetermined value.

5. (Original) The apparatus of claim 4, wherein the error refinement block outputs the error block to the error correction filter, and outputs the block having no error to the frame generation block.

6. (Currently Amended) The apparatus of claim 2, wherein the error correction filter averages pixel values of blocks adjacent to the detected error block through the median filter to obtain ~~an~~ the average value, and compensates a pixel value of the detected block by the average value.

7. (Currently Amended) A block error compensating method of an image frame comprising:

decoding an inputted image frame and outputting a decoded image frame; ~~and~~
detecting a block error of the decoded image frame based on a pixel value of a block having the detected block error and pixel values of blocks adjacent to the block;[[,]]
compensating the detected block error through a median filter[[,]]; and
outputting a compensated image frame.

8. (Canceled)

9. (Currently Amended) The method of claim ~~[[8]]~~ 7, wherein ~~confirming detecting~~ the block error is achieved by averaging pixel values of blocks adjacent to the block having the detected block error to obtain an average value, obtaining an absolute value for a difference between the average value and a pixel value of the ~~detected~~ block, and comparing the absolute value with a predetermined value.

10. (Currently Amended) The method of claim 9, wherein ~~confirming detecting the~~
block error is further achieved by determining the block having the detected block error as an
error block when the absolute value is greater than the predetermined value, and by determining
the ~~detected~~ block as a block having no error when the absolute value is less than the
predetermined value.

11. (Currently Amended) The method of claim 9, wherein the average value, $P_s(x,y)$, is
given by: $P_s(x,y) = [P(x-1,y-1) + P(x,y-1) + P(x+1,y-1)]/3 + [P(x-1,y) + P(x+1,y)]/2 + [P(x-1,y+1)$
 $+ P(x,y+1) + P(x+1,y+1)]/3$, wherein $P(x,y)$ denotes a pixel value of the detected error block.

12. (Currently Amended) The method of claim 7, wherein compensating is achieved
by averaging pixel values of blocks adjacent to the block having the detected block error through
~~a~~the median filter to obtain an average value, and compensating a pixel value of the ~~detected~~
block by the average value.

13. (Currently Amended) The method of claim 11, wherein the average value,
 $P_{gen}(x,y)$, is given by: $P_{gen}(x,y) = [P(x,y-1) + P(x,y-3) + P(x+1,y-2) + P(x-1,y-2) + P(x,y+1) +$
 $P(x,y+3) + P(x+1,y+2)]/7$, wherein $P(x,y)$ denotes a pixel value of the detected error block.

14. (Currently Amended) A system to process moving image data, comprising:
an error detection member to detect a block having an error in a decoded image frame;
an error refinement member to determine whether the block detected by the error detection member is one of an error block and an error-free block based on a pixel value of the detected block and pixel values of blocks adjacent to the detected block;
an error correction filter to compensate the error block using a median filter to form a compensated block, the error-free block to bypass the error correction filter; and
a frame generation member to restore the decoded image frame from one of the compensated block and the error-free block.

15. (Original) The system of claim 14, wherein processing of the moving image data occurs in real time.

16. (Original) The system of claim 14, wherein processing of the moving image data occurs without re-receiving the decoded image frame to compensate the error block.

17. (Original) The system of claim 14, wherein processing of the moving image data occurs without performing a motion estimation process and a motion compensation process for image frames adjacent to the decoded image frame to compensate the error block.

18. (Original) The system of claim 14, wherein the decoded image frame comprises one of an I-Frame and a P-Frame.

19. (Original) The system of claim 14, further comprising a codec decoder to output the decoded image frame.

20. (Original) The system of claim 14, further comprising a window interface to convert the restored image frame.